

## REMARKS

In view of the following discussion, the Applicants submit that none of the claims now pending in the application are unpatentable under the provisions of 35 U.S.C. § 103. The Applicants amended claims 13 and 16. Support for the amendments may be found in the Applicants' specification on at least page 15, lines 15-30 and page 16, lines 11-13. Thus, the Applicants believe that all of these claims are now in allowable form.

### I. REJECTION OF CLAIMS 13, 16, 18 AND 19 UNDER 35 U.S.C. § 103

#### A. Claim 16

The Examiner has rejected claim 16 under 35 U.S.C. § 103 as being unpatentable over Markwell et al. (US Patent 6,078,269, issued June 20, 2000, hereinafter referred to as "Markwell")<sup>1</sup> in view of Burnett, et al. (U.S. Patent No. 5,675,311, issued October 7, 1997). The Applicants respectfully traverse the rejection.

Markwell teaches a battery-powered RF-interconnected sensor system. Specifically, Markwell teaches a wireless detector that is capable of communicating with other wireless detectors using RF communication. The detector may comprise a horn capable of emitting an audible alarm, where the pattern of the alarm/horn may be varied. (See Markwell, Abstract)

Burnett teaches a frequency sweeping audio signal device. An audio signal is generated that sweeps from a lower frequency to a higher frequency in a substantially linear function. (See Burnett, Abstract).

The Examiner's attention is directed to the fact that Markwell and Burnett, alone or in any permissible combination, fails to teach or suggest an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the

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<sup>1</sup> The Applicants note that the Examiner actually cited Markwell as having a patent number of 6,532,406 in Paragraph 2 of the Office Action. However, patent number 6,532,406 refers to a vehicle computer system by Schmedding et al. Applicants believe that the Examiner is actually referring to patent number 6,078,269 instead. As such, Applicants' response below is directed to Markwell 6,078,269.

detecting of the sync pulse causes the strobe to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence, as positively claimed by Applicants in independent claim 16, which recites:

16. An alarm unit, comprising:
  - a flash circuit having a strobe for generating a flash;
  - an audio circuit having at least one of: a horn or a buzzer for generating an audio warning signal;
  - an application specific integrated circuit (ASIC) coupled to said flash circuit, and to said audio circuit, for triggering said audio warning signal, wherein said ASIC selects an audio frequency for said audio warning signal, wherein said audio frequency being a sweep frequency of approximately 2500 Hertz (Hz) to 4000 Hz, and
  - a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the strobe to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence. (Emphasis added).

In one embodiment, the Applicants teach an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the strobe to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence. (See e.g., Applicants' specification, p. 15, ll. 15-30 and p. 16, ll. 11-13).

The alleged combination (as taught by Markwell) fails to render obvious claim 16 because the alleged combination fails to teach or suggest fails to teach or suggest an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the strobe to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence. Nowhere does Markwell specify a sync pulse detection circuit or operation of the horn or buzzer and strobe in response to a detected sync pulse as recited in claim 16.

Moreover, Burnett fails to bridge the substantial gap left by Markwell because Burnett also fails to teach or suggest an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the strobe to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence. Burnett also fails to teach or suggest a sync pulse detection circuit or operation of the horn or buzzer and strobe in response to a detected sync pulse as recited in claim 16.

Therefore, the Applicants respectfully submit that claim 16 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. As such, the rejection should be withdrawn.

B. Claim 13

The Examiner has rejected claim 13 under 35 U.S.C. § 103 as being unpatentable over Markwell in view of Burnett and further in view of Bechtel (U.S. Patent No. 5,896,092, issued on April 20, 1999, hereinafter referred to as "Bechtel"). The Applicants respectfully traverse the rejection.

The teachings of Markwell and Burnett are discussed above. Bechtel teaches an alarm system adapted for use in attracting attention of hearing impaired persons and/or for use in attracting the attention of persons in high decibel areas. (See Bechtel, Abstract).

The Examiner's attention is directed to the fact that Markwell, Burnett and Bechtel, alone or in any permissible combination, fail to teach or suggest an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the flashtube to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence, as positively claimed by Applicants in claim 13, which recites:

13. An alarm unit, comprising:
  - a flash circuit having a flashtube for generating a flash;
  - an application specific integrated circuit (ASIC) coupled to said flash circuit, for triggering said flash;
  - an audio circuit having at least one of: a horn or a buzzer, coupled to said ASIC, where said audio circuit generates an audio warning signal, wherein said ASIC selects an audio frequency for said audio warning signal, wherein said audio frequency being a sweep frequency of approximately 2500 Hertz (Hz) to 4000 Hz; and
  - a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the flashtube to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an

approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence. (Emphasis added).

In one embodiment, the Applicants teach an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the flashtube to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence. (See e.g., Applicants' specification, p. 15, ll. 15-30 and p. 16, ll. 11-13).

The alleged combination (as taught by Markwell) fails to render obvious claim 13 because the alleged combination fails to teach or suggest fails to teach or suggest an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the flashtube to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence. Nowhere does Markwell specify a sync pulse detection circuit or operation of the horn or buzzer and strobe in response to a detected sync pulse as recited in claim 13.

Moreover, Burnett fails to bridge the substantial gap left by Markwell because Burnett also fails to teach or suggest an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync

pulse causes the flashtube to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence. Burnett also fails to teach or suggest a sync pulse detection circuit or operation of the horn or buzzer and strobe in response to a detected sync pulse as recited in claim 13.

In addition, Bechtel fails to bridge the substantial gap left by Markwell and Burnett because Bechtel also fails to teach or suggest an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the flashtube to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence. Bechtel only teaches an alarm system adapted for use in attracting attention of hearing impaired persons and/or for use in attracting the attention of persons in high decibel areas.

Therefore, the Applicants respectfully submit that claim 13 fully satisfies the requirements of 35 U.S.C. §103 and is patentable thereunder. As such, the rejection should be withdrawn.

C. Claim 18

The Examiner rejected claim 18 in the Office Action under 35 U.S.C. § 103 as being unpatentable over Markwell in view of Burnett and Bechtel and in further view of Park, et al. (U.S. Patent No. 5,694,118, issued on December 2, 1997, hereinafter referred to as "Park"). The Applicants respectfully traverse the rejection.

The teachings of Markwell, Burnett and Bechtel are discussed above. Park teaches a gas detection and alarm system for monitoring gas such as carbon monoxide. (See Park, Abstract).

The Examiner's attention is directed to the fact that Markwell, Burnett, Bechtel and Park, alone or in any permissible combination, fail to disclose the novel alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the flashtube to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence, as positively claimed by the Applicants' independent claim 13. (See *supra*). As discussed above, the alleged combination (as taught by Markwell, Burnett and Bechtel) simply does not teach or suggest an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the flashtube to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence.

Moreover, Park does not bridge the substantial gap left by Markwell, Burnett and Bechtel because Park also fails to teach or suggest an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the flashtube to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3

pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence. Park only teaches a gas detection and alarm system for monitoring gas such as carbon monoxide. Thus, for all of the above reasons, the Applicants respectfully contend that independent claim 13 is not made obvious by the combination of Markwell, Burnett, Bechtel and Park.

Furthermore, dependent claim 18 depends from independent claim 13 and recites additional limitations. For the same reasons discussed above, the Applicants submit that claim 18 is also patentable and not rendered obvious by the combination of Markwell, Burnett, Bechtel and Park and is allowable. As such, the Applicants respectfully request the rejection be withdrawn.

D. Claim 19

The Examiner rejected claim 19 in the Office Action under 35 U.S.C. § 103 as being unpatentable over Markwell in view of Burnett and Bechtel and in further view of Smith, et al. (U.S. Patent Publication No. 2004/0169585, published on September 2, 2004, hereinafter referred to as "Smith"). The Applicants respectfully traverse the rejection.

The teachings of Markwell, Burnett and Bechtel are discussed above. Smith teaches a method and apparatus for pest deterrence. (See Smith, Abstract).

The Examiner's attention is directed to the fact that Markwell, Burnett, Bechtel and Smith, alone or in any permissible combination, fail to disclose the novel alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the flashtube to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound

repeated three times followed by an approximately 1.0 second period of silence,  
as positively claimed by the Applicants' independent claim 13. (See *supra*). As  
discussed above, the alleged combination (as taught by Markwell, Burnett and  
Bechtel) simply does not teach or suggest an alarm unit comprising a sync pulse  
detection circuit coupled to said ASIC for detecting a sync pulse, wherein the  
sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for  
greater than a predetermined time period, wherein the detecting of the sync  
pulse causes the flashtube to generate the flash and causes the horn or the  
buzzer to generate the audio warning signal in a code 3 pattern, wherein the  
code 3 pattern comprises an approximately 0.5 second period of silence and an  
approximately 0.5 second period of sound repeated three times followed by an  
approximately 1.0 second period of silence.

Moreover, Smith does not bridge the substantial gap left by Markwell, Burnett and Bechtel because Smith also fails to teach or suggest an alarm unit comprising a sync pulse detection circuit coupled to said ASIC for detecting a sync pulse, wherein the sync pulse is detected if a voltage drops to a logic low on a pin of the ASIC for greater than a predetermined time period, wherein the detecting of the sync pulse causes the flashtube to generate the flash and causes the horn or the buzzer to generate the audio warning signal in a code 3 pattern, wherein the code 3 pattern comprises an approximately 0.5 second period of silence and an approximately 0.5 second period of sound repeated three times followed by an approximately 1.0 second period of silence. Smith only teaches a method and apparatus for pest deterrence. Thus, for all of the above reasons, the Applicants respectfully contend that claim 13 is not made obvious by the combination of Markwell, Burnett, Bechtel and Smith.

Furthermore, dependent claim 19 depends from independent claim 13 and recites additional limitations. For the same reasons discussed above, the Applicants submit that claim 19 is also patentable and not rendered obvious by the combination of Markwell, Burnett, Bechtel and Smith and is allowable. As such, the Applicants respectfully request the rejection be withdrawn.

Conclusion

Thus, the Applicants submit that all of these claims now fully satisfy the requirements of 35 U.S.C. §103. Consequently, the Applicants believe that all these claims are presently in condition for allowance. Accordingly, both reconsideration of this application and its swift passage to issue are earnestly solicited.

If, however, the Examiner believes that there are any unresolved issues in any of the claims now pending in the application, it is requested that the Examiner telephone Mr. Kin-Wah Tong, Esq. at (732) 842-8110 x130 so that appropriate arrangements can be made for resolving such issues as expeditiously as possible.

Respectfully submitted,

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